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PATENT APPLICATION
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IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Laura Dickey et al.

Confirmation No.: 3691

Application No.: 10/053,463

Examiner: BUI, Hanh Thi Minh

Filing Date: January 17, 2002

Group Art Unit: 2192

Title: Method and System for Concentration of Applications During Installation in Target Devices

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on January 23, 2009.

- The fee for filing this Appeal Brief is \$540.00 (37 CFR 41.20).
 No Additional Fee Required.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

- (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

1st Month \$130 2nd Month \$490 3rd Month \$1110 4th Month \$1730

- The extension fee has already been filed in this application.
 (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$ 540. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

Respectfully submitted,

Laura Dickey et al.

By / Steven L. Nichols/

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APPEAL BRIEF

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Sir:

This is an Appeal Brief under Rule 41.37 appealing the decision of the Primary Examiner dated November 25, 2008(the “final Office Action”). Each of the topics required by Rule 41.37 is presented herewith and is labeled appropriately.

I. Real Party in Interest

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. Related Appeals and Interferences

There are no appeals or interferences related to the present application of which the Appellant is aware.

III. Status of Claims

Claims 1-23 are pending in the application and stand finally rejected. Accordingly, Appellant appeals from the final rejection of claims 1-23, which claims are presented in the Appendix.

IV. Status of Amendments

No amendments have been filed subsequent to the final Office Action of December 15, 2006, from which Appellant takes this appeal.

V. Summary of Claimed Subject Matter

Appellant's independent claims recite the following subject matter.

1. A method of installing an application on a target electronic device (*Appellant's specification, paragraph 0007*), said method comprising:

receiving (120) said application in said target device (105) in unconcentrated form (*Appellant's specification, paragraph 0007*);

concentrating (122) said application in said target device (*Appellant's specification, paragraph 0007*); and

installing (122) said concentrated application in concentrated form in non-volatile memory of said target device (*Appellant's specification, paragraph 0007*).

9. An installer program stored on a medium for storing computer-readable instructions (*Appellant's specification, paragraphs 0008 and 0043*), said installer program, when executed, causing a host device to:

concentrate an unconcentrated application (*Appellant's specification, paragraphs 0008 and 0046*); and

install said concentrated application in concentrated form in non-volatile memory of said host device (*Appellant's specification, paragraphs 0008 and 0046*).

15. A system for installing an application on a target electronic device (105), said system comprising:

means (101, 102, 105) for concentrating said application (103) in said target device (150) (*Appellant's specification, Fig. 5*); and

means (101) for installing said concentrated application (103a) in non-volatile memory (108) of said target device (105) (*Appellant's specification, paragraphs 0048-0050*).

20. An electronic target device that hosts applications, said target device (105) comprising:

non-volatile memory (108) (*Appellant's specification, paragraph 0009*); and
an installer program (101) (*Appellant's specification, paragraph 0009*)
configured to concentrate an application (103) in said target device (105) and install said application in concentrated form (103a) in said non-volatile memory (108) of said device (105) (*Appellant's specification, Fig. 5 and paragraph 0009*).

VI. Grounds of Rejection to be Reviewed on Appeal

The final Office Action raised the following grounds of rejection.

- (1) Claims 1-5, 8-13, 15-18 and 20 were rejected as unpatentable under 35 U.S.C. § 103(a) over the combined teachings of U.S. Patent App. Pub. No. 2003/0121003 to Peev et al. (“Peev”) and U.S. Patent No. 6,163,780 to Ross (“Ross”).
- (2) Claims 6, 7, 14, 19 and 21-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peev, Ross and AudioVideo & Broadcasting Studio Systems (NOS and HP Integrate HP Microchaivm technology to provide a Java solution for Digital TV - published on Nov-Dec 2001 (“Broadcast News”).

According, Appellant hereby requests review of each of these grounds of rejection in the present appeal.

VII. Argument

(1) Claims 1-5, 8-13, 15-18 and 20 are patentable over Peev and Ross:

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in *KSR International Co. v. Teleflex Inc.*, 550 U.S._, 82 USPQ2d 1385 (2007):

“Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” Quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

As set forth in the MPEP § 2143.03, to ascertain the differences between the prior art and the claims at issue, “[a]ll claim limitations must be considered” because “all words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385. According to the Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of *KSR International Co. v. Teleflex Inc.*, Federal Register, Vol. 72, No. 195, 57526, 57529 (October 10, 2007), once the aforementioned *Graham* factual inquiries are resolved, there must be a determination of whether the claimed invention would have been obvious to one of ordinary skill in the art based on any one of the following proper rationales:

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;

- (E) “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art;
- (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. *KSR International Co. v. Teleflex Inc.*, 550 U.S., 82 USPQ2d 1385 (2007).

To support an obvious rejection it is important to clearly understand all of the elements of the claims at issue, for each element must be found in the prior art references cited as a matter of actual inquiry before proceeding. Accordingly, a review of the independent claims the scope and content of the cited references is in order.

Claim 1:

Claim 1 recites:

A method of installing an application on a target electronic device, said method comprising:
receiving said application in said target device in unconcentrated form;
concentrating said application in said target device; and
installing said concentrated application in concentrated form in non-volatile memory of said target device.

According to the final Office Action, “[r]egarding claim 1:

Peev discloses installing software on a mobile computing device
- installing said concentrated application in concentrated form in non-volatile memory of said target device.

(FIG. 3 and associated text, such as, "The installation file contains one or more files that are to be installed on the mobile computing device (also called herein 'files to be installed'), as well as computer-executable instructions for installing the files (also called herein 'installation instructions'" (See par. [0028]).

"installer 302 extracts the files 503 to be installed (assuming they were in compressed form) ... The installer 302 also parses the installation instructions 501 to the configuration manager ... the configuration manager 303 may directly execute in the

installation instructions (installing ... in concentrated form)" (emphasis added – See par. [0056]).
(final Office Action, p. 3).

This is a misquotation of Peev. The cited portion of Peev does not state "(installing ... in concentrated form)." To the contrary, the cited portion of Peev never teaches or suggests that the computer-executable instructions are installed in a concentrated form.

Paragraph 0056 of Peev, in its entirety, reads as follows.

[0056] In conventional approaches, installation instructions are executed directly by a specialized installer. However, in accordance with the present invention, the installer 302 only assists the installation process. In particular, the installer 302 extracts the files 503 to be installed (assuming they were in compressed form), and then stores them in memory 212. The installer 302 also passes the installation instructions 501 to the configuration manager. In some embodiments, the configuration manager 303 may directly execute the installation instructions. However, in the embodiment described herein, the configuration manager 303 parses through the installation instructions using a parser 304 and routes the appropriate installation instructions to other appropriate components. For example, the configuration manager 303 may cause the file operation instructions (e.g., move file, copy file, or delete file) to be executed by a file configuration service provider 308, while causing the configuration operation instructions to be executed by a registry configuration service provider 309.

(Peev, paragraph 0056).

As should be perfectly clear, there is no teaching or suggestion here of installing computer-executable instructions in a concentrated form as claimed. It is entirely unclear how the final Office Action can so clearly misquote a cited reference.

The final Office Action goes on to concede that Peev does not teach "receiving said application in said target device in unconcentrated form; [and] concentrating said application in said target device." (final Office Action, pp. 3-4). Consequently, the Action cites to Ross.

According to the final Office Action, “Ross discloses in Fig. 1, 2 and associated text, such as, ‘The bytecode to be condensed (*unconcentrated application*) may also be transmitted (*received on*) on-the-fly to the data processing system 40 (*target device*), which in turn concentrates the bytecode on-the-fly and re-trasmits the conendesed bytecode.’” (Action, p. 4), (emphasis in original). However, it does not appear that the cited portion of Ross actually teaches a method that includes concentrating an application in a “target device” where that application is to be installed.

The Action cites Ross at col. 5, lines 20-22. (Action, p. 4). Given some additional context that the final Office Action unfortunately ignores, that portion of Ross states the following.

The data processing system 40 may be a free standing system, providing bytecode concentrated in accordance with the present invention to a server 10 for transmission over the [“electronic communications network”] ECN 20. Alternatively, a server 10 may comprise the data processing system 40. Alternatively, the data processing system 40 may be in communication with user systems 30 via the ECN. In another embodiment, the data processing system 40 may receive bytecode, concentrate it on-the-fly in accordance with the present invention and then transmit it, such as to a server 10, or to another system via the ECN.

...

The bytecode to be condensed may also be transmitted on-the-fly to the data processing system 40, which in turn concentrates the bytecode on-the-fly and re-transmits the condensed bytecode.

(Ross, col. 5, lines 1-22) (emphasis added).

Thus, as cited by the final Office Action, Ross teaches a “free standing system” that can be accessed via a network. Bytecode is transmitted to the free standing system (40) which then “concentrates the bytecode on-the-fly and re-transmits the condensed bytecode” to a client device, “such as to a server 10, or to another system via the ECN.” (*Id.*) (emphasis

added). This is not a teaching or suggestion, as erroneously alleged in the recent Office Action, of “concentrating said application *in said target device*,” as recited in Claim 1.

Thus, the recent Office Action has failed to properly ascertain the differences between the cited prior art and the subject matter of Claim 1.

In light of the above summary of the cited prior art and Claim 1, it is respectfully submitted that the recent Office Action has failed to accurately resolve the *Graham* factual inquiries by failing to properly ascertain the actual differences between the cited prior art references and Claim 1 for at least the following reasons:

- The citation to Ross does not actually disclose “concentrating said application *in said target device*,” as recited in Claim 1.

- Peev does not actually disclose ‘installing said concentrated application *in concentrated form* in non-volatile memory of said target device,’ as recited in Claim 1.

As the *Graham* factual inquires are not properly resolved, application of any of the rationales (A)-(G) as set forth in the guidelines is futile because Peeve and Ross, alone or in combination, fail to provide all of the claim elements as set forth in Claim 1.

Moreover, the differences between the cited prior art and Claim 1 are substantial in that Claim 1 recites subject matter with attendant advantages that were not recognized or available from the cited prior art to Peev and Ross. For at least these reasons, the cited prior art will not support a rejection of claim 1 and its dependent under 35 U.S.C. § 103 and *Graham*, and the rejection should not be sustained.

Claim 9:

Claim 9 recites:

An installer program stored on a medium for storing computer-readable instructions, said installer program, when executed, causing a host device to:
concentrate an unconcentrated application; and
install said concentrated application in concentrated form in non-volatile memory of said host device.

In contrast to Claim 9, the cited prior art, taken in any combination, does not appear to teach or suggest all the features of Claim 9 for at least the same reasons given above with respect to the patentability of Claim 1. Specifically, as amply demonstrated above, the cited prior art does not disclose the claimed installer program causing a host device to “concentrate an unconcentrated application; and install said concentrated application in concentrated form in non-volatile memory of said host device.” (Claim 9). Therefore, the cited prior art will not support a rejection of claim 9 and its dependent under 35 U.S.C. § 103 and *Graham*, and the rejection should not be sustained.

Claim 15:

Claim 15 recites:

A system for installing an application on a target electronic device, said system comprising:
means for concentrating said application in said target device; and
means for installing said concentrated application in non-volatile memory of said target device.

In contrast to Claim 15, the cited prior art, taken in any combination, does not appear to teach or suggest all the features of Claim 15 for at least the same reasons given above with respect to the patentability of Claim 1. Specifically, as amply demonstrated above, the cited prior art does not disclose the claimed system with “means for concentrating said application

in said target device; and means for installing said concentrated application in non-volatile memory of said target device.” (Claim 15) (emphasis added). Therefore, the cited prior art will not support a rejection of claim 15 and its dependent under 35 U.S.C. § 103 and *Graham*, and the rejection should not be sustained.

Claim 20:

Claim 20 recites:

An electronic target device that hosts applications, said target device comprising:

non-volatile memory; and
an installer program configured to concentrate an application in said target device and install said application in concentrated form in said non-volatile memory of said device.

In contrast to Claim 20, the cited prior art, taken in any combination, does not appear to teach or suggest all the features of Claim 20 for at least the same reasons given above with respect to the patentability of Claim 1. Specifically, as amply demonstrated above, the cited prior art does not disclose the claimed target device with “an installer program configured to concentrate an application in said target device and install said application in concentrated form in said non-volatile memory of said device.” (Claim 20) (emphasis added). Therefore, the cited prior art will not support a rejection of claim 20 and its dependent under 35 U.S.C. § 103 and *Graham*, and the rejection should not be sustained.

Claims 2, 10 and 16:

Additionally, various dependent claims of the application recite subject matter that is further patentable over the cited prior art. For example, Claim 2 recites “wherein said

concentrating and installing of said application are contemporaneously performed.” Claims 10 and 16 recites similar subject matter.

In contrast, as noted above, Ross, as cited in the recent Action, teaches a stand alone device to which code is send for concentration before being ultimately delivered to a client device. Consequently, the cited prior art would not seem to disclose the subject matter of claims 2, 10 and 16. For at least this additional reason, the rejection of claims 2, 10 and 16 should not be sustained.

Claims 5 and 13:

Claim 5 recites “further comprising copying said application from a non-volatile removable data storage device to volatile memory of said target device prior to said concentrating of said application.” Appellant notes that claim 5 is with reference to the “target device.” Specifically, claim 5 recites copying an application from a non-volatile *removable* data storage device to the volatile memory of the *target device* prior to concentrating. Claim 13 recites similar subject matter.

In this regard, the final Office Action cites again to the Ross reference. (Action, p. 6). As demonstrated above, Ross teaches a stand alone device apart from a target device. Consequently, the teachings of Ross cited in the final Office Action in this regard clearly cannot apply to the activity *in the target device* recited in claim 5.

Clearly, the combination of Peev and Ross does not teach or suggest “copying said application from a non-volatile removable data storage device to volatile memory of said target device prior to said concentrating of said application.” For at least this additional reason, the rejection of claims 5 and 13 should not be sustained.

Claim 8:

Claim 8 recites “further comprising executing said concentrated application prior to said step of installing.” Appellant wishes to emphasize that claim 8 recites executing the *concentrated application* prior to installing that application.

In this regard, the final Office Action argues the following. (Peev further discloses in FIG. 3 and associated text, such as, "installer 302 extracts the files 503 to be installed (assuming they were in compressed form), and then ***stores them in memory 212***. The installer 302 also parses the installation instructions 501 to the configuration manager ... the configuration manager 303 may directly ***execute in the installation instructions***" (emphasis added - See par. [0056])).” (Action, p. 7) (emphasis in the original). Thus, according to the Action, Peeve teaches that a configuration manager may “execute in the installation instructions.” Having the configuration manager execute in the installation instructions clearly has nothing to do with executing a concentrated application prior to installing that application as recited in claim 8.

Clearly, the combination of Peev and Ross does not teach or suggest “executing said concentrated application prior to said step of installing.” For at least this additional reason, the rejection of claim 8 should not be sustained.

(2) Claims 6, 7, 14, 19 and 21-23 are patentable over Peev, Ross and Broadcast News:

With regard to this rejection generally, Appellant wishes to note that the real party in interest in this application, as indicated above, is Hewlett-Packard Co. Broadcast News is merely a news story reporting on the technology available from Hewlett-Packard Co. The Broadcast News article was published while the present application was being prepared and just before the present application was filed. Consequently, it would appear that, to the extent

that Broadcast News actually suggests any of the novel features of the claims in this application, it is *not* the work of another as required to support a rejection under § 103.

Given the facts in evidence, the Examiner has not established a *prima facie* case that Broadcast News can be cited as prior art against the present application. For at least this reasons, none of the rejection based on Broadcast News should be sustained on the present record.

Claim 7:

Claim 7 recites “executing said application in concentrated form with a virtual machine running on said target device.” In contrast, none of the cited prior art references teach or suggest this subject matter.

According to the final Office Action,

Broadcast News discloses "MicrochaiVM software is designed to enable Java applications to be dynamically downloaded onto resource-constrained devices in bandwidth-restrained network environments. By using **HP Chaifreezedry patented software algorithms**, which is **part of HP's Microchai VM environment**, Java **application memory** requirements are **reduced** with no loss in application performance." (emphasis added - See Col. 2: 25-Col. 3: 6).

Examiner noted that it would have been obvious to one having ordinary skill in the art at the time of the invention to store application in concentrated form in a virtual machine data store since Java virtual machine (JVM) is a virtual "execution engine" instance that executes the bytecodes in Java class files on a microprocessor. (Action, pp. 11-12).

Nowhere here does the Action actually allege that the cited prior art teaches “executing said application in concentrated form” as recited in claim 7. Moreover, the cited prior art, taken in any combination, never teaches or suggests any such subject matter. For at least this additional reason, the rejection of claim 7 should not be sustained.

In view of the foregoing, it is submitted that the final rejection of the pending claims is improper and should not be sustained. Therefore, a reversal of the Rejection of November 25, 2008 is respectfully requested.

Respectfully submitted,

DATE: March 23, 2009

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VIII. CLAIMS APPENDIX

1. (previously presented) A method of installing an application on a target electronic device, said method comprising:
 - receiving said application in said target device in unconcentrated form;
 - concentrating said application in said target device; and
 - installing said concentrated application in concentrated form in non-volatile memory of said target device.
2. (original) The method of claim 1, wherein said concentrating and installing of said application are contemporaneously performed.
3. (original) The method of claim 1, further comprising receiving said application via a network with which said target device is communicating.
4. (original) The method of claim 1, further comprising copying said application from non-volatile memory of said target device to volatile memory of said target device prior to said concentrating of said application.
5. (original) The method of claim 1, further comprising copying said application from a non-volatile removable data storage device to volatile memory of said target device prior to said concentrating of said application.

6. (original) The method of claim 1, wherein said installing of said application further comprises storing said application in concentrated form in a virtual machine data store.

7. (original) The method of claim 1, further comprising executing said application in concentrated form with a virtual machine running on said target device.

8. (original) The method of claim 1, further comprising executing said concentrated application prior to said step of installing.

9. (previously presented) An installer program stored on a medium for storing computer-readable instructions, said installer program, when executed, causing a host device to:

concentrate an unconcentrated application; and
install said concentrated application in concentrated form in non-volatile memory of said host device.

10. (original) The program of claim 9, said program, when executed, further causing said host device to contemporaneously concentrate and install said application.

11. (original) The program of claim 9, said program, when executed, further causing said host device to receive said application via a network with which said host device is communicating and store said application in volatile memory of said host device.

12. (original) The program of claim 9, said program, when executed, further causing said host device to copy said application from non-volatile memory of said host device to volatile memory of said host device prior to concentrating said application.

13. (original) The program of claim 9, said program, when executed, further causing said host device to copy said application from a non-volatile removable data storage device to volatile memory of said host device prior to concentrating said application.

14. (original) The program of claim 9, said program, when executed, further causing said host device to install said application in concentrated form in a virtual machine data store.

15. (original) A system for installing an application on a target electronic device, said system comprising:

means for concentrating said application in said target device; and
means for installing said concentrated application in non-volatile memory of said target device.

16. (original) The system of claim 15, wherein said means for concentrating and said means for installing contemporaneously operate.

17. (original) The system of claim 15, further comprising means for copying said application from non-volatile memory of said target device to volatile memory of said target device prior to concentrating said application.

18. (original) The system of claim 15, further comprising means for executing said application in concentrated form.

19. (original) The system of claim 18, wherein said means for executing said application in concentrated form comprise a virtual machine running on said target device.

20. (previously presented) An electronic target device that hosts applications, said target device comprising:

non-volatile memory; and
an installer program configured to concentrate an application in said target device and install said application in concentrated form in said non-volatile memory of said device.

21. (original) The device of claim 20, further comprising a virtual machine stored in said non-volatile memory, said virtual machine being configured to execute concentrated applications when said virtual machine is executed.

22. (original) The device of claim 20, further comprising a virtual machine data store within said non-volatile memory, said concentrated application being stored in said virtual machine data store.

23. (original) The device of claim 22, further comprising a plurality of concentrated applications stored in said virtual machine data store.

IX. Evidence Appendix

None

X. Related Proceedings Appendix

None